and died in the afternoon. The autopsy revealed the presence of several large cysts or sacs, one of them being nearly as large as the bladder itself. The latter presented evidences of inflammatory disease, which mainly hastened the fatal result. In some of the cysts numerous calculous fragments were lodged, and had the patient lived, they would have become the nidus for a return of the complaint. Mr. Coulson, in his work, refers to the record of a case in which the operator took six months to free the bladder completely from the detritus.

The following case was noticed in our "Mirror" of the 4th January:—

The patient, George W——, aged forty-three, was admitted on December 10th, 1861, with a stone in the bladder, for which lithotomy was performed by Mr. Henry Lee. He stated that there had been something wrong with his urine for twenty years, but the symptoms were never urgent. Six months ago he passed some small pieces of stone. For the last two months he has been unable to hold his urine; it continually dribbled away. He suffered also from prolapsus ani. A stone was readily detected, and lithotomy was performed on the 19th of December by the median method, with a modification of the bilateral, as has been already described. A large stone was found filling up the whole of the bladder, so that the finger could hardly be passed between it and the walls of the latter—so large, in fact, that the blades of the forceps could not be dilated sufficiently to grasp it. The stone was soft and friable; it was therefore broken up by the forceps, and the fragments extracted. The nucleus was hard and large. Some fragments of stone were adherent to the mucous membrane of the bladder, and imbedded in it, so that they could not be removed. At four P.M. of the same day he had quite recovered from the effects of the chloroform. He felt sick, and there was constant oozing of blood from the wound; pulse 144.—At eight P.M., he felt comfortable, and inclined to sleep; no bleeding.

Dec. 20th.—Seems pretty cheerful. Has had no more sickness, and the bleeding has entirely ceased. He did not sleep well; pulse 110; tongue furred.

21st.—Passed a pretty comfortable night, and does not complain of any pain; pulse 140, intermittent; very little urine comes through the wound. He takes twenty drops of laudanum every three hours, and six ounces of gin daily.

22nd.—He was decidedly lower; pulse very intermittent, and feebler; evidently sinking. Gin omitted; to have eight ounces of red wine. He gradually got weaker, and died quietly at half-past three P.M.

*Autopsy, twenty-three hours after death.*—Body in good condition. The heart was healthy, except two or three nodules of atheromatous matter upon the aortic valves. The lungs and bronchial tubes were filled with frothy mucus. The cells of the liver were fatty. There was no peritonitis. The lining membrane and coats of the bladder were much congested, soft, and pulpy; the lining was very rugged, and was spotted in many places with fragments of calculus. The walls were thickened, and the cavity small. There were several pouches of considerable size: one at the neck, about half the size of the bladder itself. There were two others which would have held chesnuts. Through one of these the opening into the bladder was constricted.

## METROPOLITAN FREE HOSPITAL.

### THIRTY-THIRD CONSECUTIVE CASE OF LITHOTOMY AND RECOVERY.

(Under the care of Mr. G. BORLASE CHILDS.)

FOR the notes of the following case we are indebted to Dr. John Warner, the resident medical officer:—

Henry P——, aged three years, a full-faced rickety child, with prominent forehead, surclosed anterior fontanelle, and enlarged ends of long bones, and who cannot walk alone, was admitted on the 5th November, suffering from stone in the bladder. Symptoms of the disease had been noticed for about four months. No blood had been observed in his urine, but micturition had been very frequent and painful; of late he had had incontinence. The use of the sound immediately detected a small calculus. Mr. Childs performed the usual lateral operation on November 9th, and extracted a smooth lithate-of-ammonia calculus, of about the size of a horse bean. By the end of a fortnight the wound had quite healed, and the patient was discharged cured on December 3rd.

This is the thirty-third consecutive case of lithotomy performed by Mr. Childs, in private and hospital practice, followed by complete recovery, and without the occurrence of any serious symptoms. The only peculiarities in Mr. Childs' mode of operating are,—that he does not inject the bladder, but directs the patient to retain his urine for some time before the operation; and that he incises the bladder to a very small extent, just sufficient to admit of the forefinger being used as a dilator.

# Medical Societies.

## ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, JAN. 28TH, 1862.

DR. BABINGTON, PRESIDENT, IN THE CHAIR.

### ON THE TEMPERATURE, UREA, CHLORIDE OF SODIUM, AND URINARY WATER IN SCARLET FEVER; AND ON A CYCLE IN DISEASE AND HEALTH.

BY SYDNEY RINGER, M.B.,

RESIDENT MEDICAL OFFICER TO UNIVERSITY COLLEGE HOSPITAL, LATE MEDICAL REGISTRAR TO THE CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.

(*Communicated by* Dr. GARROD, F.R.S.)

THE observations were made on patients in the Hospital for Sick Children, under the care of Drs. West, Jenner, and Hillier. Thirty cases are given. The temperature, taken several times during the day, is given in charts. The urea and chloride of sodium were estimated daily by Liebig's volumetric method. The observations extended over a variable time, in some cases till the forty-fifth day of the disease.

I. *On the Temperature.*

1. This fell, in the great majority of cases, on either the fifth, tenth, or fifteenth day of the disease.

2. When the temperature remained high till the fifteenth or the twentieth day, a fall of variable intensity occurred, usually on each of the preceding fifth days—namely, the fifth, tenth, and fifteenth. The temperature after each fall in some cases remained, during the subsequent five days, at the same point reached on the preceding fifth day; in other cases it rose again, reaching during the second or third five days a point as high as it did during the first five.

3. Each fall of the temperature is accompanied by an improvement in the state of the patient, which remains permanent when the temperature does not again rise.

4. Of seventeen cases that came early under notice, the average maximum temperature was a little above 103°.

5. Subsequent to the great fall experienced on the fifth, tenth, or fifteenth day, the temperature often remained rather too high over a variable time, in some cases for fifteen days. The degree of elevation varied, in some cases being between 100° and 101°, but more frequently between 99° and 100°. This elevation of the temperature also usually experienced a fall on each fifth day.

6. This subsequent elevation of the temperature, if of any persistence, was coincident with a continuation of the lesions produced by the scarlet fever, as sore-throat, &c. It sometimes preceded an attack of Bright's disease.

7. At a variable period after the scarlet fever, another elevation of the temperature occurred, due either to Bright's disease, endocarditis, tuberculosis, or chicken-pox; in two cases the cause could not be ascertained.

8. The date of the second elevation varied: thus, counting from the commencement of the scarlet fever, in albuminuria the mean of six cases gave the twenty-second day; in two cases in which the elevation was probably due to endocarditis, the elevation began on the eighth day; in one case of chicken-pox it commenced on the sixth day; in one case of tuberculosis, on the ninth.

9. The duration of the elevation due to the above causes varied from two to thirteen days.

10. This subsequent elevation of the temperature due to intercurrent disease always fell either on a fifth day from its own commencement or on a fifth day from the commencement of the scarlet fever.

11. Thus the temperature forms arcs or cycles, lasting in the majority of cases five days; this equally applies to the temperature of the scarlet fever, or of any subsequent intercurrent disease.

12. In severe cases the temperature remained at the same point throughout the day; in slighter cases it fell in the morn-

ing and rose during the day: this fall in the morning is one of the earliest signs of improvement.

13. The hour of the day at which the temperature reached its highest point varied greatly. It was most frequently at its highest at some time between two P.M. and eight P.M.

II. *On the Urea.*

1. The urea appears to suffer no increase during the fever.

2. The amount of urea for many days after the decline of the fever is far below the amount normal to the patient.

3. From the above, the author thinks it probable that the kidney is affected from the commencement of the attack, and the elimination of the urea thus checked. In some of the cases the children were puffy about the face, without any blood or albumen occurring in the urine; this perhaps was caused by the retention of urea.

4. On the intercurrence of Bright's disease, the urea in some cases was greatly diminished; in other cases no diminution occurred.

III. *On the Chlorides.*

1. The chlorides were never found absent in any of the cases analyzed.

2. Their amount was always much diminished during the fever days.

3. After the fall of the temperature the chlorides increased gradually.

4. In one case in which Bright's disease supervened the chlorides were estimated: they suffered very little diminution.

IV. *On the Urinary Water.*

Often during the fever there is no diminution in the amount of urinary water; in some cases it is increased.

V. *On the Albumen in the Urine.*

1. The albumen appears at two different periods: (*a*) during the fever days; (*b*) later, during the non-fever days. Out of 21 cases, it only appeared once during the fever days. Of 18 cases which were in the hospital for a considerable time, in 7 albumen appeared during the fever free days.

2. The time of its appearance varied from the ninth to the twenty-third day.

3. The duration of the albumen in the urine varied from three to forty-nine days.

4. There is no necessary connexion between the intensity of the inflammation (tested by the elevation of the temperature) and the duration of the albumen in the urine.

5. There is no necessary connexion between the intensity of the inflammation and the amount of albumen in the urine.

VI. *On Blood in the Urine.*

1. There may be an elevation of the temperature, due probably to inflammation of the kidney, without any blood in the urine.

2. In no case did blood appear without previous elevation of the temperature.

3. In some cases the blood continued long after the fall of the temperature, and thus probably after the decline of the inflammation.

VII. *Relationship between the Blood and Albumen in the Urine.*

1. A very large amount of albumen may occur in the urine without any blood.

2. Blood to a very large amount may occur in the urine with the slightest trace of albumen; and if the blood-corpuscles be allowed to settle, the supernatant fluid may give no evidence of albumen.

These cases given were seldom dropsical; they, however, often looked puffy in the face. In some cases the second elevation of the temperature due to Bright's disease was not followed even by puffiness. In one case the patient was puffy, without any other indication of Bright's disease.

VIII. *On a Cycle in Disease.*

In the cases given the temperature did not run an equable course, neither remaining at the same temperature throughout; but formed cycles, composed of a variable number of days, each cycle, however, being composed of the same number of days in the same patient. The cycles in the great majority of cases were composed of five days.

IX. *On a Cycle in Health.*

The author tries to prove from the cases given that in health we have a daily and a five-days' cycle of tissue change. He further tries to show that in fevers we have a great increase of this daily and five days' cycle of tissue change, from which results the great elevation of the temperature.

Dr. EDWARD SMITH thought that the paper was valuable as the expression of the opinions of one who had taken great pains in such inquiries. The Society would, however, have been able to follow the author's meaning more easily if he had used English terms for weights and measures. Dr. Ringer had made his experiments on temperature by placing the thermometer in the armpit. Now the temperature of the body in different parts varied; and, again, it was influenced by the action of the skin: so that great care was requisite in order to avoid fallacy. He wished also to know if the observations had been made at the same period of the day, and at the same distance of time from meals. Again, the relation of urea to the body-weight differed in different persons. In his own case it was one grain to the pound, but in others it varied to a great extent. It did not depend so much on the bulk or the weight, as on the relative quantity of nitrogen in the body. The food, too, and its nature as to richness in nitrogen, was a point on which great care ought to be exercised, as it would have much influence on the amount of urea excreted.

Dr. RINGER briefly replied.

## OBSTETRICAL SOCIETY OF LONDON.

FEBRUARY 5TH, 1862.

DR. TYLER SMITH, PRESIDENT, IN THE CHAIR.

THE following gentlemen were duly elected Fellows of the Society:—Thos. Thornely Brooke, St. Mary's Hospital; John Clarke, Lynton, North Devon; John Stewart Lamb, M.D. Ed., Maida hill; Malim Sharman, Birmingham; Geo. John Vine, F.R.C.S., Woburn-place.

Dr. HARLEY read his report on Mr. Spencer Wells's case of

EXFOLIATION OF THE FEMALE BLADDER.

The specimen is a bag or sac, as large as a child's head, and perfect on all sides except one, where there are several rents. The exterior is of a white colour, and distinctly muscular, the muscular fibres running in an interlacing manner, as in the urinary bladder. The interior is of a dark colour, and everywhere covered with gritty deposit, on the removal of which a smooth mucous membrane comes into view. The gritty deposit consists of crystalline phosphates and urates. Over a limited portion of the external surface is a patch of a smooth membrane, like a serous membrane; and if it be such, it is probably a portion of the peritoneum. No ureters nor orifices of ureters are to be found in the specimen, and the position of the urethra cannot be ascertained in consequence of the rents in the lower portion of the specimen. For a similar reason, it is impossible to discover whether the specimen is an entire organ or only a portion of an organ. The question, "Is it a human bladder?" is not easily answered on anatomical grounds, for in its present state the specimen has neither the size nor shape of a human female bladder. The moral evidence, however, is all in favour of the view that it is, as has been described, an exfoliation of a human bladder.

The foregoing are the general conclusions arrived at by the reporter; the arguments for and against the view taken were minutely and elaborately stated by Dr. Harley.

Dr. TANNER remarked that there was a preparation (No. 1993) in the museum of the Royal College of Surgeons which might help to throw some light upon the nature of the specimen that had just been reported on. The history of the patient from whose bladder the membrane was removed had been communicated to him (Dr. Tanner) by Dr. Knox, and was as follows:—A man, seventy years of age, living in Edinburgh, fell from a scaffold, and in consequence suffered from retention of urine. The catheter was introduced frequently, and a thick puriform fluid drawn off by it. At the end of the third week, however, nothing would pass through the instrument; while the point of the catheter could be felt to impinge upon a membrane. To relieve the man's sufferings, the late Mr. Liston, assisted by Dr. Knox, cut into the bladder from above the pubes, and thus allowed a large quantity of purulent fluid and a membrane to escape. The patient lived for three months afterwards, discharging his urine partly through the wound and partly through the urethra. On examining the layer of membrane, it is seen to be of saccular form, about six inches in its longer and four inches in its shorter diameter. Its shape indicates that it lined the whole interior of the bladder, and was thrown off from it